Examiner-Initiated Interview Summary	Application No.	Applicant(s)	
	09/759,708	HENKE, GARY E.	
	Examiner	Art Unit	
	Ashwin Mehta	1638	

All Participants: **Status of Application:** _____

(1) *Ashwin Mehta*. (3) _____.

(2) *Lila Ackrad*. (4) _____.

Date of Interview: *5 January 2004* **Time:** _____

Type of Interview:
☒ Telephonic
☐ Video Conference
☐ Personal (Copy given to: ☐ Applicant ☐ Applicant's representative)

Exhibit Shown or Demonstrated: ☐ Yes ☒ No
If Yes, provide a brief description:

Part I.

Rejection(s) discussed:
None

Claims discussed:
1-7, 51, 52, 54, 64-76, and new claims 77-106

Prior art documents discussed:
None

Part II.

SUBSTANCE OF INTERVIEW DESCRIBING THE GENERAL NATURE OF WHAT WAS DISCUSSED:
Examiner's amendments to the claims were discussed and approved.

Part III.

☒ It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview directly resulted in the allowance of the application. The examiner will provide a written summary of the substance of the interview in the Notice of Allowability.

☐ It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview did not result in resolution of all issues. A brief summary by the examiner appears in Part II above.

(Examiner/SPE Signature) (Applicant/Applicant's Representative Signature – if appropriate)

Claim Objections and Rejections

1. The objection to claims 20 and 50, and the rejections of claims 8, 42-49, 53, and 55-63 under 35 U.S.C. 112, 1st and/or 2nd paragraphs, are withdrawn in light of the claim cancellations.

Examiner's Amendment

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Lila Ackrad on January 5, 2004.

The application has been amended as follows:

In the claims:

1. Seed of hybrid maize variety [Hybrid maize seed] designated X1139Y, representative seed of said variety [hybrid X1139Y] having been deposited under ATCC Accession number _____.

Claims 5-7, 51, 52, 54, and 64-76 have been cancelled.

The following new claims have been added:

77. (New) A tissue culture of regenerable cells produced from the plant of claim 2.

78. (New) Protoplasts produced from the tissue culture of claim 77.

79. (New) The tissue culture of claim 77, wherein cells of the tissue culture are from a tissue selected from the group consisting of leaf, pollen, embryo, root, root tip, anther, silk, flower, kernel, ear, cob, husk and stalk.

80. (New) A maize plant regenerated from the tissue culture of claim 77, said plant having all the morphological and physiological characteristics of hybrid maize plant X1139Y, representative seed of said plant having been deposited under ATCC Accession No. _____.

82. (New): A method for producing an F1 hybrid maize seed, comprising crossing the plant of claim 2 with a different maize plant and harvesting the resultant F1 hybrid maize seed.

83. (New) A method of producing a male sterile hybrid maize plant comprising transforming at least one of inbred maize parent plants GE565937 and GE502199, representative samples of which have been deposited as _____ and _____ respectively, with a nucleic acid molecule that confers male sterility and crossing said inbred maize parent plants to produce said male sterile hybrid maize plant.

84. (New) A male sterile maize hybrid plant produced by the method of claim 83.

85. (New) A method of producing an herbicide resistant hybrid maize plant comprising transforming at least one of inbred maize parent plants GE565937 and GE502199, representative samples of which have been deposited as ____ and ____ respectively, with a transgene that confers herbicide resistance to generate an herbicide resistant inbred maize parent plant and crossing said inbred maize parent plants to produce said herbicide resistant

hybrid maize plant.

86. (New) An herbicide resistant hybrid maize plant produced by the method of claim 85.

87. (New) The herbicide resistant hybrid maize plant of claim 86, wherein the transgene confers resistance to an herbicide selected from the group consisting of: imidazolinone, sulfonylurea, glyphosate, glufosinate, L-phosphinothricin, triazine and benzonitrile.

88. (New) A method of producing an insect resistant hybrid maize plant comprising transforming at least one of inbred maize parent plants GE565937 and GE502199, representative samples of which have been deposited as ____ and ____ respectively, with a transgene that confers insect resistance to generate an insect resistant inbred maize parent plant and crossing said inbred maize parent plants to produce said insect resistant hybrid maize plant.

89. (New) An insect resistant hybrid maize plant produced by the method of claim 88.

90. (New) The insect resistant hybrid maize plant of claim 89, wherein the transgene encodes a *Bacillus thuringiensis* endotoxin.

91. (New) A method of producing a disease resistant hybrid maize plant comprising transforming at least one of inbred maize parent plants GE565937 and GE502199, representative samples of which have been deposited as ____ and ____ respectively, with a transgene that confers disease

resistance to generate a disease resistant inbred maize parent plant and crossing said inbred maize parent plants to produce said disease resistant hybrid maize plant.

92. (New) A disease resistant hybrid maize plant produced by the method of claim 91.

93. (New) A method of producing a hybrid maize plant with decreased phytate content comprising transforming at least one of inbred maize parent plants GE565937 and GE502199, representative samples of which have been deposited as ____ and ____ respectively, with a transgene encoding phytase to generate an inbred maize parent plant with decreased phytate content and crossing said inbred maize parent plants to produce said hybrid maize plant that confers decreased phytate content.

94. (New) A hybrid maize plant with decreased phytate content produced by the method of claim 93.

95. (New) A method of producing a hybrid maize plant with modified fatty acid metabolism or modified carbohydrate metabolism comprising transforming at least one of inbred maize parent plants GE565937 and GE502199, representative samples of which have been deposited as ____ and ____ respectively, with a transgene encoding a protein selected from the group consisting of stearyl-ACP desaturase, fructosyltransferase, levansucrase, alpha-amylase, invertase and starch branching enzyme to generate an inbred maize parent plant with modified fatty acid metabolism or modified carbohydrate metabolism and crossing said inbred maize parent plants to produce

said hybrid maize plant that confers modified fatty acid metabolism or modified carbohydrate metabolism.

96. (New) A hybrid maize plant produced by the method of claim 95.

97. (New) The hybrid maize plant of claim 96 wherein the transgene confers a trait selected from the group consisting of waxy starch and increased amylose starch.

98. (New) A maize plant, or a part thereof, having all the physiological and morphological characteristics of the hybrid maize plant X1139Y, representative seed of said plant having been deposited under ATCC Accession No. ____.

99. (New) A method of introducing a desired trait into a hybrid maize line X1139Y comprising:

(a) crossing at least one of inbred maize parent plants GE565937 and GE502199, representative samples of which have been deposited under ATCC Accession Nos. as ____ and ____ respectively, with another maize line that comprises a desired trait, to produce F1 progeny plants, wherein the desired trait is selected from the group consisting of male sterility, herbicide resistance, insect resistance, disease resistance and waxy starch;

(b) selecting said F1 progeny plants that have the desired trait to produce selected F1 progeny plants;

(c) backcrossing the selected progeny plants with said inbred maize parent plant to produce backcross progeny plants;

(d) selecting for backcross progeny plants that have the desired trait and morphological and physiological characteristics of said inbred maize parent plant;

(e) repeating steps (c) and (d) three or more times in succession to produce selected fourth or higher backcross progeny plants;

(f) crossing said fourth or higher backcross progeny plant with the other inbred maize parent plant to generate a hybrid maize line X1139Y with the desired trait and all of the morphological and physiological characteristics of hybrid maize line X1139Y listed in Table 1 as determined at the 5% significance level when grown in the same environmental conditions.

100. (New) A plant produced by the method of claim 99, wherein the plant has the desired trait and all of the physiological and morphological characteristics of hybrid maize line X1139Y listed in Table 1 as determined at the 5% significance level when grown in the same environmental conditions.

101. (New) The plant of claim 100 wherein the desired trait is herbicide resistance and the resistance is conferred to an herbicide selected from the group consisting of: imidazolinone, sulfonylurea, glyphosate, glufosinate, L-phosphinothricin, triazine and benzonitrile.

102. (New) The plant of claim 100 wherein the desired trait is insect resistance and the insect resistance is conferred by a transgene encoding a *Bacillus thuringiensis* endotoxin.

103. (New) The plant of claim 100 wherein the desired trait is male sterility and the trait is conferred by a cytoplasmic nucleic acid molecule that confers male sterility.

104. (New) A method of modifying fatty acid metabolism, phytic acid metabolism or carbohydrate metabolism in a hybrid maize line X1139Y comprising:

(a) crossing at least one of inbred maize parent plants GE565937 and GE502199, representative samples of which have been deposited under ATCC Accession Nos. as ____ and ____ respectively, with another maize line that comprises a nucleic acid molecule encoding an enzyme selected from the group consisting of phytase, stearyl-ACP desaturase, fructosyltransferase, levansucrase, alpha-amylase, invertase and starch branching enzyme;

(b) selecting said F1 progeny plants that have said nucleic acid molecule to produce selected F1 progeny plants;

(c) backcrossing the selected progeny plants with said inbred maize parent plant to produce backcross progeny plants;

(d) selecting for backcross progeny plants that have said nucleic acid molecule and morphological and physiological characteristics of said inbred maize parent plant;

(e) repeating steps (c) and (d) three or more times in succession to produce selected fourth or higher backcross progeny plants;

(f) crossing said fourth or higher backcross progeny plant with the other inbred maize parent plant to generate a hybrid maize line X1139Y that comprises said nucleic acid molecule and has all of the morphological and physiological characteristics of hybrid maize line X1139Y listed in Table 1 as determined at the 5% significance level when grown in the same environmental conditions.

105. (New) A plant produced by the method of claim 104, wherein the plant comprises the nucleic acid molecule and has all of the physiological and morphological characteristics of hybrid maize line X1139Y listed in Table 1 as determined at the 5% significance level when grown in the same environmental conditions.

106. (New) A method for producing a maize seed, comprising crossing the plant of claim 2 with itself or a different maize plant and harvesting the resultant maize seed.

3. Claims 1-4 and 77-106 are allowed.

REQUIREMENT OF ALLOWANCE UNDER 37 CFR §§ 1.801-1.809

4. The deposit statements in the specification on pages 7 and 50 are deemed in accordance with 37 CFR §§ 1.801-1.809. Therefore, no 35 USC § 112, 1st paragraph rejection has been

maintained even though it is apparent that seed of hybrid maize X1139Y and seed of inbred maize varieties GE565937 and GE502199 are essential to the claimed invention and that their deposit is necessary for an adequate written description and enablement for the claimed invention. Since the application is otherwise in condition for allowance except for the needed deposit of X1139Y, GE565937, and GE502199 seed, and since the Office has received written assurance that an acceptable deposit will be made on or before payment of the issue fee, the Office is authorized to mail Applicant a Notice of Allowance and Issue Fee Due together with a requirement that the needed deposit be made within THREE (3) MONTHS of the mail date of this letter (see 37 CFR§ 1.809(c)).

Under 37 CFR 1.809(c)(d) an applicant is required to make a deposit of seed within three months after the mailing date of the Notice Of Allowance and Issue Fee Due. The time period for making a biological deposit, and an amendment to add the depository information to the specification, is no longer extendable. See 37 CFR 1.136(c) and 1.809(c), revised in Changes to the Time Period for Making any Necessary Deposit of Biological Material, 66 Fed. Reg. 21090 (April 27, 2001), 1246 Off. Gaz. Pat. Office 104 (May 22, 2001), effective for Notices of Allowability mailed on or after May 29, 2001. Amendments are no longer permitted to be filed after the payment of the issue fee. See 37 CFR 1.312, revised in Changes to Application Examination and Provisional Application Practice, 65 Fed. Reg. 14865, 14869 and 14873 (March 20, 2000), 1233 Off. Gaz. Pat. Office 47, 50 and 54 (April 11, 2000), effective on May 29, 2000. Failure to make the needed deposit of seeds of X1139Y, GE565937, and GE502199 will result in abandonment of the application for failure to prosecute. The deposit statements on pages 7 and 50 in the specification, and all claims which refer to the instant seeds by name, must

be amended to include the deposit accession numbers. These amendments should be submitted before the payment of the issue fee as an Amendment After Allowance under 37 CFR 1.312. The statement of deposit in the specification shall contain:

(1) The accession number for the deposit(s);

(2) The date of the deposit(s);

(3) A description of the deposited biological material sufficient to specifically identify and to permit examination; and

(4) The name and address of the depository. (See 37 CFR 1.809(d)).

Contact Information

Any inquiry concerning this or earlier communications from the examiner should be directed to Ashwin Mehta, whose telephone number is 571-272-0803. The examiner can normally be reached on Mondays-Thursdays and alternate Fridays from 8:00 A.M to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, can be reached at 571-272-0804. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 and 703-872-9306 for regular communications and 703-872-9307 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

January 5, 2004

Ashwin D. Mehta, Ph.D.
Primary Examiner
Art Unit 1638